

## BIOGRAPHICAL SKETCH

**NAME:** Jane Ellen Simmons

**POSITION TITLE:** Toxicologist

### EDUCATION/TRAINING

Institution	Degree	Year	Field of Study
UNC-Chapel Hill, NC	B.S.	1974	Zoology
School of Public Health, UNC-Chapel Hill, NC	M.S.P.H.	1978	Envrn. Manag. & Prot.
School of Public Health, UNC-Chapel Hill, NC	Ph.D.	1983	Toxicology

### PROFESSIONAL EXPERIENCE:

1984-1986 National Research Council Resident Research Associate, U.S. EPA, RTP, NC

1986-Present Toxicologist, NHEERL, U.S. EPA, RTP, NC

1992-Present Assistant (92-2002)/Associate(2003) Adjunct Professor, School of Public Health, UNC-CH

### PROFESSIONAL SOCIETIES:

Diplomate, American Board of Toxicology, 1991; Recertification, 1996, 2001

Editorial Board, Journal of Toxicology and Environmental Health, 1995 - Present

Society of Toxicology

NC Chapter of the Society of Toxicology

### SELECTED AWARDS AND HONORS: (Since Jan. 1., 1998)

U.S. EPA Silver Medal, 2002

U.S. EPA Sustained Superior Performance Award, 2001

U.S. EPA Scientific and Technological Achievement Award, 2001

### INVITED LECTURES/SYMPOSIA: (Since Jan. 1., 1998)

Workshop on The Risk Assessment of Mixtures of Disinfection ByProducts in Drinking Water, 'Toxicity of Mixtures of Trihalomethanes in Mice', Cincinnati, OH, May, 1998.

International Life Sciences Institute Conference on Safety of Water Disinfection: Balancing Chemical and Microbial Risks, Disinfection ByProduct Mixtures: An Historical Perspective, Present Research Efforts and Future Research Needs, Miami FL, November 15-17, 1999.

North Carolina Science Advisory Board, 'Advanced Age Increases the Hepatotoxicity of Carbon Tetrachloride in Aged Rats', March, 2000

International Society for Exposure Analysis, Disinfection ByProducts Symposium, 'The Toxicology and Risk Assessment of Disinfection ByProducts', October, 2000.

Application of Technology to Chemical Mixtures, Development of an Research Strategy for Integrated Technology-Based Toxicology Studies on Drinking Water Disinfection ByProducts, Fort Collins, CO, January, 2001.

Microbial/Disinfection ByProducts Health Effects Symposium, 'Development of a Research Strategy for Integrated Disinfection By-Products Mixtures Research: Toxicological and Chemical Evaluation of Alternative Disinfection Treatment Scenarios', Lisle, IL, March 24-26, 2001.

International Conference on Chemical Mixtures, 'Component-Based and Whole-Mixtures Assessments in Addressing the Toxicity of the Unidentified Fraction of Complex Mixtures: Drinking Water as an Example', September 10-12, Atlanta, GA. 2002.

Society of Toxicology Cumulative Risk Workshop, Designing Studies and Collecting Data Useful for Cumulative Risk Assessment, Salt Lake City, March, 2003

Toxicology and Risk Assessment Conference, 'Methods and Techniques for Dealing with the Unidentified Fraction of Complex Mixtures', April 28-May 1, 2003, Fairborn, OH.

### ASSISTANCE/LEADERSHIP PROVIDED TO THE SCIENTIFIC COMMUNITY:(Selected Ex., 98-present)

Steering Committee, International Conference on Chemical Mixtures, September 10-12, 2002, Atlanta, GA

Member, Binary Weight of Evidence Workgroup of ATSDR, 2001-present.

Expert Panel, Review of ATSDR Guidance for Chemical Mixtures Risk Assessment; Review of Guidance for Development of Interaction Profiles, 2000.

Expert consultant to the North Carolina Science Advisory Board during for reevaluation of the human health risk(s) associated with exposure to carbon tetrachloride, 2000.

### ASSISTANCE/LEADERSHIP PROVIDED TO THE AGENCY:(Selected Examples, Jan., 1998-present)

Member, Human Health Risk Assessment Implementation Planning Team, 2000-present.  
 Co-Coordinator, Limits of Additivity Project Plan, 2000-present.  
 Member, Supplementary Guidance Workgroup for Chemical Mixtures Risk Assessment, 1995 - 2000.  
 Member, Goal 1 Team, 1999.  
 Member, Expert Advisory Panel to OPP on Cumulative Risk Assessment for Pesticides, 1999.  
 Lead, Integrated Cross-ORD DBP Mixtures Research Program, 1999-present.  
 Member, Cross-Divisional Air Toxics Workgroup, 1995 - present.  
 Project Officer, Pesticides Mixtures Cooperative agreement, 1999 - present.

**PUBLICATIONS (January 1, 1998 to present, 17 out of a total of 71 publications):**

1. Keegan, T. E., Simmons, J.E., and Pegram, R. A., NOAEL and LOAEL Determinations of Acute Hepatotoxicity for Chloroform and Bromodichloromethane Delivered in an Aqueous Vehicle to F-344 rats. *Journal of Toxicology and Environmental Health*, 1998, 55:65-75.
2. Schoeffner, D. J., Warren, D. A., Muralidhara, S., Bruckner, J. V. and Simmons, J. E., Organ Weights and Fat Volume in Rats as a Function of Strain and Age. *Journal of Toxicology and Environmental Health*, Part A, 1999, 56:1449-462.
3. Boyes, W. K., Bushnell, P. J., Crofton, K. M., Evans, M. and Simmons, J. E., Neurotoxic and Pharmacokinetic Responses to Trichloroethylene as a Function of Exposure Scenario. *Environmental Health Perspectives*, 2000, 108 (Suppl.2):317-322.
4. Teuschler, L. K., Gennings, C., Hartley, W. R., Stitler, W. M., Colman, J. T., Hertzberg, R. C., Thiagarajah, A. Lipscomb, J. C. and Simmons, J. E., A Multiple-Purpose Design Approach to the Evaluation of Risks from Mixtures of Disinfection By-Products, *Drug and Chemical Toxicology*, 2000, 23(1):307-321.
5. U.S. EPA (Contributor). 2000. Supplementary Guidance for Conducting Health Risk Assessment of Chemical Mixtures. EPA/630/R-00/002.
6. U.S. EPA (Contributor). 2000. Conducting a Risk Assessment of Mixtures of Disinfection By-Products (DBPs) for Drinking Water Treatment Systems. NCEA-C-0791. (Key GPRA Deliverable #534).
7. Simmons, J. E., Teuschler, L. K. and Gennings, C. 2001. The Toxicology of Disinfection By-Products: Methods for Multi-Chemical Assessment, Present Research Efforts and Future Research Needs. In: Microbial Pathogens and Disinfection By-Products in Drinking Water: Health Effects and Management of Risks. Eds., Caun, G. F., Hauchman, F. S and Robinson, D. E., ILSI Press, Washington. pp: 325-340.
8. Evans, M. V., Boyes, W. K., Simmons, J. E., Litton, D. K. and Easterling, M. R., A Comparison of Haber's Rule at Different Ages Using a PBPK Model for Chloroform in Rats. *Toxicology*, 2002, 176(1-2):11-23.
9. Richardson, S. D., Simmons, J. E., and Rice, G. DBPs: The Next Generation. *Environmental Science and Technology*, 2002, 36(9):197A-205A.
10. Simmons, J. E., Boyes, W. K., Bushnell, P. J., Raymer, J., Limsakun, T., McDonald, A. and Evans, M.V., A Physiologically-Based Pharmacokinetic Model for Trichloroethylene with Specificity for the Long-Evans Rat. *Toxicological Sciences*, 2002, 69:3-15.
11. Simmons, J. E., Richardson, S. D., Speth, T., Miltner, R. J., Rice, G., Schenck, K. and Teuschler, L., K., Development of an Research Strategy for Integrated Technology-Based Toxicology Studies on Drinking Water Disinfection ByProducts. *Environmental Health Perspectives*, 2002, 110 (Supplement 6): 1013.1024.
12. Gennings, C., Teuschler, L. K., Hartley, W., Thiagarajah, A. and Simmons, J. E., Analysis of Ordinal Histopathology Scores in an Additivity Model for Four Trihalomethanes. *Journal of Agricultural, Biological and Environmental Statistics*, 2002. (Accepted Subject to Revision).
13. Meadows, S. L., Gennings, C., Carter, W. H., Jr. and Simmons, J. E. Analysis of Mixtures of Drugs/Chemicals Along a Fixed Ratio Ray Without Single Chemical Data to Support an Additivity Model. *Journal of Agricultural, Biological and Environmental Statistics* (Accepted Subject to Revision).
14. Teuschler, L. K. and Simmons, J. E. Approaching the Toxicity of Disinfection By-Products in Drinking Water as a Mixtures Problem. *Journal of the American Water Works Association*. 2003 ( In Press to be Published July, 2003)
15. Boyes, W., K., Bercegeay, M., Ali, J. S., Krantz, T., McGee, J., Evans, M.V., Raymer, J. H., Bushnell, P.J. and Simmons, J. E., Dose-Based Duration Adjustments for the Effects of Inhaled Trichloroethylene on Rat Visual Function. *Toxicological Sciences*, 2003 (Submitted).
16. Teuschler, L. K., Hertzberg, R. C., Rice, Glenn E. and Simmons, J. E., EPA Project-Level Research Strategies for Chemical Mixtures: Targeted Research for Meaningful Results. *Pharmacology and Toxicology* 2003 (Submitted).
17. Gennings, C., Carter, W. H., Jr., Casey, M., Moser, V., Carchman, R. and Simmons, J. E., Analysis of Functional Effects of a Mixture of Five Pesticides Using a Ray Design. *Pharmacology and Toxicology* 2003 (Submitted).